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->From the Editor's Keyboard "Saying it like it is!"
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It was wet this year during Halloween celebrations, so it was fairly quiet around here. I was working, so we weren't able to participate in the festivities. But, these things happen.

The one celebration that we were able to join was the stunning victory by the Red Sox in the World Series. From worst, to best, in a single year! Quite an impressive victory! I always held hope that Atari might have had a similar positive outcome many years ago, but alas, it was never to happen. Today, it's simply a memory - a good one, but not the same.

Until next time...

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->In This Week's Gaming Section - PS4: How Digital Sharing Works!
""""""""""""""""""""""""""""""" Atari Wins Approval for Bankruptcy Vote!
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->A-ONE's Game Console Industry News - The Latest Gaming News!
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PS4: How Digital Sharing Works

The FAQ explains that you'll be asked to register one PlayStation 4 as your primary console. Doing so will mean anyone playing on that console on different accounts can play games and apps you've gotten from the PS Store and make use of PS Plus benefits, or you can connect to it over the internet with your Vita to make use of Remote Play.

Registering your PS4 as your primary system will allow other users who play on the same console with different accounts access to any games you've downloaded without you having to log in. Additionally, if you have PS Plus and register a PS4 as your primary console, then every account that plays on that system will be able to make use of certain benefits like online multiplayer even without their own PS Plus subscription.

If you want to play on another PS4 that isn't your primary console, you can download any game you've bought on the PS Store as long as you sign into PSN. Only you'll be able to start the games you've downloaded, and you can only be logged into two consoles at any one time: your primary PS4 and one other secondary one (like a friend's). The good news is there's no limit on the number of systems you can download your games to. You have to be logged in in order to play, but from the sounds of things this means you can share digital games with as many mates as you like, though only one of these secondary consoles will be able to play a title at any given time and you'll have to tell them your password so they can log in.

As has been mentioned before, the situation with discs remains the same as ever. Sony has reiterated that, "You can share disc games with your friends and play used disc games on your PS4 system just like you can on a PlayStation 3 system. You do not have to connect to the Internet or pay any usage fees to play used games."

The PlayStation 4 will be available in North America on November 15 and in Europe on November 29.

Gamer Memories: PS2 Launch

Editor's Note: The PS2 is 13 years old today, so we're re-promoting this memories piece from December 2009 about the launch. Enjoy.

At IGN, we're a lot of things. Nerds, douches, Achievement whores, over-raters, under-raters, and so much more, but at our core, we are gamers. Each and every one of us has a brain filled with cherished memories that revolve around our hobby. Unwrapping a Nintendo Entertainment System on Christmas morning, beating Streets of Rage with a pal, desperately trying to get Lara Croft's nude code to work you get the idea. Before all of us who lived the adventure drift into a senile state and forget, IGN thought it would assemble those stories in an ongoing feature called "Gamer Memories."

Here, an editor will walk you through one of his or her favorite memories involving a controller, some kind of dance pad, or (more generally) a memory that was a defining experience for the editor's time with games. On tap for this installment? Why, it's none other than Greg Miller, an IGN editor known for screaming on Podcast Beyond and Game Scoop.

For some people, it's their wedding day. For others, it's the birth of their first child. For me, October 26, 2000 will be the date that is forever burned into my brain. It was the launch of the PlayStation 2, and it was glorious.

To truly understand why the PlayStation 2 was such a big deal to me, you have to jump back months and months to a time Prince and Will Smith sang about; a time called 1999. See, I went to my friend Jason's house, and he

had these new things called DVDs they were like CDs for videos. It was mindboggling enough to be able to skip by "chapters" instead of fast forwarding, but the bigger deal was that Mallrats was on this "DVD" and had a whole "commentary track" by Kevin Smith and company.

I watched it until 2 a.m. and knew that I needed this format. Of course, DVD players were crazy expensive at this point in time, so it seemed I would have to go on waiting forever. Then, the PS2 was announced. Along with great games, the black beauty would come packing the ability to play DVD movies.

My brain went into overload.

The first thing I did was tell my parents that I'd be getting a typical summer job in 2000 and that none of the money I earned would be going into my savings account nearly everything I earned would be spent on PlayStation 2 games and accessories. With my mission in mind, I took a soul crushing job as a cashier at Wal-Mart. Once the paychecks started coming in, I kept my sanity by going to Best Buy on my lunch break and buying DVDs such as Ghostbusters, Chasing Amy, and so on.

This is June, ladies and gentlemen. I was buying things for a system that was nearly five months away. Not only was I buying them, I was keeping them wrapped until that day. I'd even pore over them in my car during later lunch breaks and once I got them onto my bookshelf at home.

I was crossing the border into crazyland. I was preordering games like Silent Scope and Smuggler's Run. I was buying terrible third-party DVD remotes, and I was poring over and over the same issue of Electronic Gaming Monthly (No. 136/November 2000).

The box that started it all.The box that started it all.This fever pitch continued all the way up until October 25, 2000. On that day, I left school giddy as I've ever been, raced to a Meijer (think a Wal-Mart Supercenter) in St. Charles, Ill., and pretty much ran to the back of the store with one of those canvas chairs people sit in to fish.

Now, as I a fat kid from the suburbs of Chicago sprinted through this store, I expected the worst. I had a preorder at a Funcoland, but there was no guarantee that store would get enough systems. Coming here and waiting in line would give me the chance to have a system at 12:01 a.m., but I expected there to already be a line, seeing as how it was 3 p.m. the day before the biggest videogame launch of all time.

When I got to the electronics department completely winded I found two clerks chatting and not one customer in sight. When they heard my labored breathing, they turned to me and I said the only thing I could think of.

"I'm here for the PlayStation 2 launch," I said as they stared in disbelief. "I'm not a nerd."

With that, the clerks rolled their eyes and pointed me to the front of the game display cabinet. I was the first person in line (number two was my friend, whose seat I was holding, and number three would arrive about 15 minutes after I did). I would sit there in the Meijer electronics department being mocked by the occasional passerby, watching the line grow until they had to turn people away, and rereading issue 136 of EGM for nine hours.

Never forget.

As 12:01 a.m. drew closer, some random clerk from another department showed up to chat with the electronics staff, and I remember being so sure that he was going to try and butt in front of me that I was literally mentally preparing myself to attack him if he did. In the end, he didn't, and I pulled out the $350-plus I had in cash in a money belt under my shirt and became the first dude in the store to buy the system. After the transaction, I kind of stumbled forward lost in a sea of emotion while my friend began checking out. Someone in the line had to shout to me to hold it up, and when I did, cheers rained down upon me.

That was the start of my life with the PlayStation 2, but it was far from my last memory. Later that night, my friend's father demanded that we stop playing and go to bed. In the darkness of the guest room, I tiptoed over to my still-boxed system and picked it up to see if it was real. I went to put it down but misjudged where the floor was and ended up dropping it a few inches to the floor. I freaked out. The next day, I fled school with the PS2 belted into my passenger seat and blew off the next day of classes.

There's so much more to tell, but for the rest of my life, October 26 will mean something to me that few will be able to truly understand. I'm eternally grateful for that. Oh, and here at my desk in the IGN office? EGM No. 136 has been in my cabinet since my first day on the job.

Atari Wins Approval To Send Plan to Vote: Bankruptcy

Atari Inc., the bankrupt video-game maker, won court approval to seek creditors votes on its plan to exit bankruptcy protection as a going concern.

U.S. Bankruptcy Judge James M. Peck approved the company s disclosure statement, an outline of the restructuring plan, finding that it contained adequate information for creditors to make an informed vote, according to court documents filed Oct. 29 in Manhattan. The company is scheduled to seek court approval of its reorganization plan at a Dec. 5 hearing.

The plan effectuates a restructuring transaction under which the sponsor will make contributions to the estates sufficient to ensure a meaningful recovery to holders of general unsecured claims, the New York-based company said in court filings. Unsecured creditors are projected to receive a recovery of as much as 25 percent.

The company sought bankruptcy protection in January intending to break away from French parent Atari SA (ATA), which hasn t made a profit since 1999 and sought related relief from creditors under French law, the company has said.

A pioneer in the home video-game console market and maker of classic titles such as Pong and Asteroids, Atari attempted to sell virtually all its assets earlier this year, according to court documents. Atari, which owned or managed more than 200 games and franchises, failed to get qualified offers for key assets including its namesake brand, for which it was seeking a minimum of $15 million.

Atari, founded in 1972, changed course in September and now plans to reorganize and continue operating with the brands it has left, according to court documents. Its parent is sponsoring the restructuring plan.

Atari and the parent determined the business and remaining assets have substantial value that would not otherwise be realized in a liquidation. The video-game maker would reorganize around titles such as RollerCoaster Tycoon, Test Drive and Centipede.

The company moved forward with auctions of seven less-valuable franchises that generated a total of about $5.1 million, according to court papers.

Under the reorganization plan, unsecured creditors, which Atari estimates are owed $5 million to $7 million, would get cash payments for a recovery of as much as 25 percent, according to court documents. The recovery estimate assumes the unsecured creditors aren t owed more than $7 million and would be reduced if allowed claims exceed that amount.

The official committee representing unsecured creditors supports the plan, according to court papers. The unsecured creditors would get a payment of 8 percent of their claims or $560,000, whichever is less, when the plan takes effect. They would get identical treatment one year later, and then get a payment for the lesser of 9 percent of their claims or $630,000 two years later.

Atari SA is waiving its right to any distribution on its $309.5 million in intercompany claims, according to court documents. Alden Global Capital, which acquired a secured credit facility to Atari SA in February, would be paid in full on the $5 million it loaned to help fund the bankruptcy case.

The case is In re Atari Inc., 13-bk-10176, U.S. Bankruptcy Court, Southern District of New York (Manhattan).

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A-ONE’s Headline News
The Latest in Computer Technology News
Compiled by: Dana P. Jacobson

FAA To Allow Airlines To Expand Use of Personal Electronics

The U.S. Department of Transportation’s Federal Aviation Administration (FAA) Administrator Michael Huerta today announced that the FAA has determined that airlines can safely expand passenger use of Portable Electronic Devices (PEDs) during all phases of flight, and is immediately providing the airlines with implementation guidance.

Due to differences among fleets and operations, the implementation will vary among airlines, but the agency expects many carriers will prove to the FAA that their planes allow passengers to safely use their devices in airplane mode, gate-to-gate, by the end of the year.

The FAA based its decision on input from a group of experts that included representatives from the airlines, aviation manufacturers, passengers,

pilots, flight attendants, and the mobile technology industry.

Passengers will eventually be able to read e-books, play games, and watch videos on their devices during all phases of flight, with very limited exceptions. Electronic items, books and magazines, must be held or put in the seat back pocket during the actual takeoff and landing roll. Cell phones should be in airplane mode or with cellular service disabled i.e., no signal bars displayed and cannot be used for voice communications based on FCC regulations that prohibit any airborne calls using cell phones. If your air carrier provides Wi-Fi service during flight, you may use those services. You can also continue to use short-range Bluetooth accessories, like wireless keyboards.

"We believe today’s decision honors both our commitment to safety and consumer’s increasing desire to use their electronic devices during all phases of their flights," said Transportation Secretary Anthony Foxx. "These guidelines reflect input from passengers, pilots, manufacturers, and flight attendants, and I look forward to seeing airlines implement these much anticipated guidelines in the near future."

"I commend the dedication and excellent work of all the experts who spent the past year working together to give us a solid report so we can now move forward with a safety-based decision on when passengers can use PEDs on airplanes," said FAA Administrator Michael Huerta.

The PED Aviation Rulemaking Committee (ARC) concluded most commercial airplanes can tolerate radio interference signals from PEDs. In a recent report, they recommended that the FAA provide airlines with new procedures to assess if their airplanes can tolerate radio interference from PEDs. Once an airline verifies the tolerance of its fleet, it can allow passengers to use handheld, lightweight electronic devices such as tablets, e-readers, and smartphones at all altitudes. In rare instances of low-visibility, the crew will instruct passengers to turn off their devices during landing. The group also recommended that heavier devices should be safely stowed under seats or in overhead bins during takeoff and landing.

The FAA is streamlining the approval of expanded PED use by giving airlines updated, clear guidance. This FAA tool will help airlines assess the risks of potential PED-induced avionics problems for their airplanes and specific operations. Airlines will evaluate avionics as well as changes to stowage rules and passenger announcements. Each airline will also need to revise manuals, checklists for crewmember training materials, carry-on baggage programs and passenger briefings before expanding use of PEDs. Each airline will determine how and when they will allow passengers broader use of PEDs.

The FAA did not consider changing the regulations regarding the use of cell phones for voice communications during flight because the issue is under the jurisdiction of the Federal Communications Commission (FCC). The ARC did recommend that the FAA consult with the Federal Communications Commission (FCC) to review its current rules. Cell phones differ from most PEDs in that they are designed to send out signals strong enough to be received at great distances

Top Things Passengers Should Know about Expanded Use of PEDs on Airplanes:

1. Make safety your first priority.

2. Changes to PED policies will not happen immediately and will vary by airline. Check with your airline to see if and when you can use your PED.

3. Current PED policies remain in effect until an airline completes a safety assessment, gets FAA approval, and changes its PED policy.

4. Cell phones may not be used for voice communications.

5. Devices must be used in airplane mode or with the cellular connection disabled. You may use the WiFi connection on your device if the plane has an installed WiFi system and the airline allows its use. You can also continue to use short-range Bluetooth accessories, like wireless keyboards.

6. Properly stow heavier devices under seats or in the overhead bins during takeoff and landing. These items could impede evacuation of an aircraft or may injure you or someone else in the event of turbulence or an accident.

7. During the safety briefing, put down electronic devices, books and newspapers and listen to the crewmember's instructions.

8. It only takes a few minutes to secure items according to the crew's instructions during takeoff and landing.

9. In some instances of low visibility about one percent of flights some landing systems may not be proved PED tolerant, so you may be asked to turn off your device.

10. Always follow crew instructions and immediately turn off your device if asked.

Current FAA regulations require an aircraft operator to determine that radio frequency interference from PEDs is not a flight safety risk before the operator authorizes them for use during certain phases of flight. Even PEDs that do not intentionally transmit signals can emit unintentional radio energy. This energy may affect aircraft safety because the signals can occur at the same frequencies used by the plane's highly sensitive communications, navigation, flight control and electronic equipment. An airline must show it can prevent potential interference that could pose a safety hazard. The PED ARC report helps the FAA to guide airlines through determining that they can safely allow widespread use of PEDs.

The PED ARC began work in January, at the request of Administrator Huerta, to determine if it is safe to allow more widespread use of electronic devices in today's aircraft. The group also reviewed the public's comments in response to an August 2012 FAA notice on current policy, guidance, and procedures that aircraft operators use when determining if passengers can use PEDs. The group did not consider the use of electronic devices for voice communications. A fact sheet on the report is now available.

The FAA is immediately giving airlines a clear path to safely expand PED use by passengers, and the Administrator will evaluate the rest of the ARC's longer-term recommendations and respond at a later date.

A Portable Electronic Device is any piece of lightweight, electrically-powered equipment. These devices are typically consumer electronic devices capable of communications, data processing and/or

utility. Examples range from handheld, lightweight electronic devices such as tablets, e-readers, and smartphones to small devices such as MP3 players and electronic toys.

Venezuela’s President Denounces Attack by Twitter

Venezuelan President Nicolas Maduro is denouncing what he calls a "massive attack" by Twitter and the "international right wing" against his account and those of several government agencies with the social media website.

Maduro said Thursday that more than 6,000 of his 1.4 million followers were mysteriously removed from his Twitter account as part of a campaign to destabilize his government. The government says the accounts of a pro-government newspaper and Venezuela’s immigration authority were also suspended, along with the accounts of two ministries.

Twitter spokesman Nu Wexler says the website isn’t commenting on the matter.

Maduro has embraced social media as the late President Hugo Chavez did. In September, he launched profiles in French, English, Arabic and Portuguese to spread the ideals of his 21st century socialist revolution.

New Darkmail Alliance Aims To Make Email NSA-proof

Secure email service Lavabit closed up shop earlier this year after the United States government forced it to hand over its users private data. But now the Lavabit team is working together with the team from Silent Circle to form the Darkmail Alliance, a new group that s developing a new standard to help keep email away from the prying eyes of both hackers and government intelligence agencies. In an interview with The Guardian, Silent Circle cofounder Mike Janke explains that current email protocols are fundamentally broken and are in desperate need of a fix.

 The existing email architecture is 40 years old, and it s what allows the world s surveillance community, hackers and other data mining companies, to get data, Janke says. So what happened is you saw nation states can go to an email provider and coerce them into turning over the keys and decrypting.

The goal in developing the Darkmail secure email standard is to make it available for all email providers to use. Janke hopes that eventually it will become so popular among smaller email providers that it will put pressure on big providers such as Microsoft, Yahoo and Google to adopt the standard as well.

Darkmail aims to make email secure again by bringing it back to its roots, when it was being used by a tiny circle of people in the Defense Advanced Research Projects Agency (DARPA) in the 1970s. Basically, emails sent between two Darkmail-enabled accounts will have their messages encrypted and sent peer-to-peer and not through a centralized server. In this sense, Darkmail is trying to make a group of trusted users who know they can securely send emails to one another just as the early DARPA

users were a trusted network of peers.

Janke says that he ll consider the initiative a success if half of the world s emails are eventually sent through Darkmail architecture. While this is certainly an ambitious goal, it s certainly achievable if he gets some of the big-name providers on board.

What are [the large providers] going to do? asks Janke rhetorically. Are they going to actually join in? Or are they going to kick the can down the road?

Facebook’s Ad Warning Sounds A Note of Caution for Twitter

Facebook Inc’s investors and other proponents of the social network like to say that it captures one of the greatest concentrations of human attention on the planet and thus offers a boundless opportunity for advertisers.

But Facebook Chief Financial Officer David Ebersman on Wednesday cast doubt on those assertions by suggesting that there may be a limit on how many ads Facebook can show users before they get turned off.

Ebersman’s warning carries far-reaching implications for not only Facebook but also other social media companies including Twitter Inc, which is in the middle of a roadshow to promote its initial public offering to investors.

Twitter has yet to turn a profit but it is pitching an advertising business model similar to Facebook’s.

"It’s important for investors to realize that there is a limitation on the mobile ad revenue that can be generated. The sky isn’t the limit when it comes to that," said Jeff Sica, the founder of Sica Wealth Management. "That’s the issue with Facebook. That will be the issue with Twitter."

Seven-year old Twitter faces an additional challenge: its active user base, now at 230 million, has expanded much more slowly compared to Facebook, due in part to its struggle to retain newcomers. A recent Reuters-Ipsos poll found 36 percent of Twitter users do not use the online messaging service.

"You don’t know how many people sign up and don’t use it, how many abandoned accounts they have," said Adam Grossman, an analyst at Middleton & Co who attended a roadshow lunch presentation by Twitter executives in Boston on Thursday.

Twitter has set a price range of $17 to $21 per share for its IPO, which aims to raise up to $1.6 billion. The price range values Twitter at up to $11 billion, less than the $15 billion that some analysts had expected.

One investor who attended the Thursday luncheon said Twitter’s ubiquitous brand name will draw some investors.

"It’s a company that has changed the world so I wouldn’t bet against it," said the investor, who did not want to be identified. "But they also haven’t created a business model which has proven that they can continue to grow at 100 percent a year and be profitable."

Twitter is trying to expand its ad business in other ways. This week it closed a $350 million deal to acquire MoPub, an ad network that serves ads within mobile apps.

"The consumer eyeballs, and the amount of ads they can absorb without being irritated, is finite," said Rich Wong, a venture capitalist at Accel Partners, who invested in MoPub and AdMob, a mobile ad network that Google Inc acquired for $750 million.

With MoPub, Twitter will be able to serve ads in other apps to grow revenue without cluttering its own users' Twitter streams, Wong said. "By leasing real estate, you can expand by orders of magnitude the eyeballs you can get to," he said.

It remains to be seen whether MoPub can unearth new revenue for Twitter. But some industry experts liken the deal to Google's $3.1 billion acquisition of DoubleClick in 2008, which helped the search giant improve its ability to place targeted ads on Web pages across the Internet, not just google.com.

In the case of MoPub, Twitter will serve ads within third-party mobile apps, such as games, rather than websites.

In late September, Facebook also resumed work on its own mobile ad network after it appeared to put the project on hold earlier in the year, according to several tech blogs.

The renewed effort to seek other sources of revenue could be explained by Facebook's reluctance to show more than one ad per 20 stories in a user's news feed. Ebersman told analysts on Wednesday that the 5 percent ad ratio would not increase by much in the future.

That surprised some analysts and investors who had expected a higher rate.

"Five percent is relatively low," said Brian Blau, a Gartner analyst. "I'm surprised that it's only five percent. I was anticipating more, to really push the boundaries."

According to its investor prospectus, Twitter now makes a little over $0.65 per user compared to Facebook's $1.72. Analysts believe Twitter has room to grow in getting more revenue per user because Chief Executive Dick Costolo has been cautious so far about injecting more ads into Twitter streams.

Twitter's format and the nature of its fast-scrolling content also differs from Facebook, which means Twitter users may be more tolerant of ads, said Gartner's Blau.

But if Twitter's ability to show more ads becomes limited, then it would have to seek higher ad prices by promising marketers the ability to target users with greater accuracy.

In the past year, Twitter has expanded its targeting features to show ads to users who live in certain metropolitan areas, or show interest in certain topics.

Twitter infers what its users are interested in based on who they follow and what they tweet. In July, the company also began to use cookies to track the Web pages that its users visit, a commonly employed technique

among Internet firms.

But even when displaying the highly personalized ads prized by marketers, social media companies have had to weigh the value of the ad versus their "creepiness factor," which could scare away fickle users.

Dell Laptop Buyers Make A Stink Over Cat Smell

A noxious feline odor has some Dell customers caterwauling.

People who own Dell Latitude 6430u laptops are complaining that their pricey new computers are emitting a smell similar to cat urine. Some of them said on the company's online customer forums that the odor seems to be coming from the keyboard or palm rest.

The Round Rock, Texas, company originally advised buyers through its forums to try cleaning their keyboards with a soft cloth or compressed air, but the smell persisted.

"The machine is great, but it smells as if it was assembled near a tomcat's litter box," wrote a customer using the handle "three west" on a Dell forum back in June. "It is truly awful!"

On Wednesday, another customer writing under the handle "passflips" said he felt terrible for repeatedly scolding his cat Jerry, because he thought the elderly cat kept spraying the computer. The poster also said he wasted money on veterinarian bills in an attempt to determine whether his cat had a medical problem.

Dell said Thursday that its investigation revealed strange scent is related to a manufacturing process, which the company has since fixed. But if your portable PC isn't purrfect, Dell recommends contacting the company's technical support team to have your laptop's palm rest assembly replaced.

Company spokesman David Frink said the odor isn't related to a "biological contamination" and doesn't present a health hazard. He added that newly assembled laptops that are currently in stores aren't affected.

The laptops in question are ultrabooks designed for business use. The base model starts at $900 on Dell's website, but Dell charges close to $1,300 for higher-end versions that include Windows 8 and Intel Core i5 processors.

While laptop users may find the smell of cat urine offensive, "cat's pee" is a term sometimes used by wine lovers to describe a wine's aroma.

And while the smell coming from the Dell computers is apparently unintentional, more than one group of engineers is working on "Smell-o-Vision" TV to engage viewers' olfactory senses. In addition, a host of recent smartphone add-ons make scents, too, including the Scentee, a Japanese smartphone attachment that plugs into a phone's earphone jack and dispenses scented vapors through dedicated cartridges.

Google Donates 17,000 Nexus Tablets to Hurricane Sandy Communities

Google has donated 17,000 Nexus tablets, with a total retail value of over $2.7 million, to libraries, senior centers and business and community centers in areas affected by Hurricane Sandy.

The tablets will be distributed to central locations in those areas. The exact list of locations can be found here.

Private donations like these are critical in aiding local communities in our ongoing recovery. We thank Google for helping New York build back better than before, said New York Governor Andrew Cuomo.

The launch of Google’s Nexus 10 tablet was affected by Hurricane Sandy last year, as its October 2012 event was postponed due to the storm.

Microsoft Surface 2 Review: A Tablet/Keyboard Duo Worthy of a Second Chance

You can say Microsoft s original Surface tablet was a bit of a box office flop. The company s first tablet aimed to offer a list of things the iPad didn t Microsoft Office, a nice keyboard companion and some interesting multitasking features -- but most people didn t quite see it that way. Microsoft ultimately dropped the price on the tablet to move stock and took a $900 million write-down on unsold inventory.

With the sequel the Surface 2 Microsoft is asking for a second chance. For $449, Microsoft has slimmed down the tablet, improved the screen, doubled the battery life and made a host of tweaks to Windows to address the initial frustrations. It has also improved the companion $100 Touch Cover and the $150 Type Cover keyboards.

This time around, Microsoft is promising the most productive tablet and the only device you need in your bag. But is it? Do those fixes put the Surface on better footing in the crowded tablet market, or is Microsoft looking at another failed attempt to thwart the competition?

Despite some cosmetic changes, the Surface still looks like a Surface. And thanks to the new Surface logo on the back of the kickstand everyone can tell that s exactly what it is. But that s not necessarily a bad thing.

Like the original, the magnesium or VaporMg structure and the Gorilla Glass screen give it an extremely solid build, which, as I tested last year, allows the tablet to survive all sorts of bumps and drops. Microsoft has actually brought out the color of the metal on the new Surface 2, which is now available in only a silver shade. The $899 Surface Pro 2 is only available in black.

The tablet still has its signature built-in kickstand, though Microsoft has added another latch to allow it to sit back a bit further. It might seem like a small thing, but it allowed me to write the brunt of this review in an airplane seat with the tablet comfortably propped up on my lap. However, the biggest aesthetic difference you ll only notice when you lift up the tablet and see that is now .35 inches thick and 1.49 pounds. No, that s nowhere as near as thin or light as Apple s 1-pound iPad Air and still doesn t allow for one-handed use, but it s a substantial improvement over the last generation.

O.K., so maybe onlookers might not notice the difference between the new Surface and the old, but they will be able to tell the difference if they look at the screen. Microsoft has upgraded the 10.6-inch display s resolution to 1920 x 1080, making everything crisper and clearer. The anti-glare coating has also been improved and does help cut down on reflection from the sun or overhead light.

This is not just a tablet, or it s the one device for everything in your life. Every ad for the Surface features the Touch or Type keyboard covers with just such a tagline. However, what Microsoft doesn t say in those advertisements is that the keyboard cover isn t included and it costs at least an extra $100 to turn the tablet into a laptop.

And if there is a reason to get the Surface, it is for the keyboard options. Typing on the flat surface of the Touch Cover still takes some getting used to, but the sensitivity has been improved with this version. The Type Cover, in comparison, has real keys and is really akin to typing on a laptop. Both keyboards are now backlit and automatically illuminate when it is dim or dark, which came in very handy in my dark coach airplane seat.

For the brunt of my testing, I have used one of the two covers. They do enhance the tablet experience, just as Microsoft says on its billboards, which is why I wish one of them was included with the tablet for the starting price.

The most significant changes really do happen inside the tablet, where Microsoft has crammed more processing and battery power. Now powered by a quad-core NVIDIA Tegra 4 processor, the tablet ran much more swiftly than the previous version, launching apps quickly and smoothly scrolling down long webpages.

But the most improved award goes to the battery life. Unlike the previous version, which lasted just eight hours on a charge, the Surface 2 looped a video for 13 hours. I also had more than 50 percent remaining after a flight from NYC to San Francisco.

But all of that hardware advancement would be for nothing without some software improvements. Windows 8.1, Microsoft s latest update to Windows 8, includes some much-needed usability improvements and finally includes some easy on-screen instructions for guiding new users through features, including placing two apps side by side.

Windows 8 feels like a much stronger operating system than a year ago, though one still confused about its identity. Am I a laptop? Am I a tablet? Jumping between the traditional desktop and the touch-friendly homescreen of live tiles is jarring and confusing. Still, Microsoft has polished up some features, including the search function, which now searches Bing and the computer. It has also added new apps like the Reading List, which makes it really easy to save an article and read it in an RSS App, and it has improved core apps like Internet Explorer and Mail. This version also includes a full version of Office.

However, while the Windows Store is stocked with more apps than a year ago, it is still missing some of my go-to tablet applications, making it hard for me to feel fully at home on the Surface. While the new Facebook and Twitter apps are nicely designed, the store still lacks apps I use on a daily basis, including Flipboard (though it should arrive soon), Feedly and Rdio.

And because this is running the RT version of Windows 8.1, you cannot simply download apps through the browser. The $899 Surface Pro comes with the full version of Windows 8.1 capable of running all types of Windows applications. We ll forgive you for being confused.

The Surface 2 is a vastly improved tablet. It s what the first Surface should have been a thin, light, long-lasting machine with a nice screen. But while Microsoft has been busy catching up, the competition has been staying a step ahead. Apple s iPad Air hits shelves today and the tablet is nearly half the weight and thickness of the Surface. It also has a bigger breadth of apps and now has a free version of iWork, Apple s Office alternative.

The Surface s keyboards continue to set it apart, but with that added on you re looking at a $550 package. Still, the Surface 2 is a compelling option for those who are invested in the Microsoft ecosystem, enjoy some of Windows 8.1 s features, and want a tablet that works seamlessly with a keyboard. The Surface won t be a box office flop again, but it s still not the hit sequel the company was hoping for.

4D Printing May Bolster Arsenal of US Army

The 3D printing revolution shows no signs of letting up, and now has made its way on to the next dimension.

The U.S. Army Research Office has awarded $855,000 to three universities to make advances in 4D printing, which is the ability to 3D-print objects that can change their shape or appearance over time (the fourth dimension), or in response to some condition. Potential uses for the technology are endless, but ideas that have been floated include camouflage that can change color to match its surroundings and weapons that can assemble themselves.

"Rather than construct a static material or one that simply changes its shape, we’re proposing the development of adaptive, biomimetic composites that re-program their shape, properties or functionality on demand, based upon external stimuli," said Anna Balazs, a researcher at Harvard, in a statement. The U.S. Army awarded additional 4D-printing grants to scientists at the University of Pittsburgh and the University of Illinois.

Research in this project will concentrate on 4D-printing materials at the microscopic scale. Other researchers have shown they can 4D-print larger objects like self-assembling cubes and other shapes.

One of the limitations of 3D printing, wherein a printer lays down successive layers of material like plastic to create objects as diverse as guns and toys, is that assembly is often required. But 4D printing offers the ability to make things that literally pull themselves together.

The technology could also create objects that last longer than their 3D-printed counterparts and adapt to specific conditions on command.

"If you use materials that possess the ability to change their properties or shape multiple times, you don’t have to build for a specific, one-time use," Balazs said.

Other proposed uses for 4D printing include building bridges that can self-heal if cracks form, and "adaptive pipes" that can expand or contract on their own.

US Woman Questions Ticket for Wearing Google Glass

An early adopter of Google’s Internet-connected eyeglasses may soon become a guinea pig of a different sort.

Cecilia Abadie was pulled over for speeding Tuesday evening in San Diego, and a California Highway Patrol officer noticed she was wearing Google Glass. The officer tacked on a citation usually given to drivers who may be distracted by a video or TV screen.

Abadie plans to contest what may be a first-of-its-kind citation, and in doing so push authorities on the question of how to regulate evolving gadgetry that will one day be mainstream.

The eyeglasses, which are not yet widely available to the public, feature a hidden computer and a thumbnail-size transparent display screen above the right eye. Users can scan maps for directions as well as receive web search results, read email and engage in video chats without reaching for a smartphone.

Abadie, a software developer, told The Associated Press that she was not using her Google Glass when she was pulled over.

It’s unclear whether a citation for Google Glass has been issued before.

Abadie said she is surprised that wearing the glasses would be illegal and that she’s "pretty sure" she will fight the ticket.

"The law is not clear, the laws are very outdated," Abadie said, suggesting that navigating with the device could be less distracting than with a GPS device or phone.

Though Google Glass users can continue looking ahead, by glancing at the screen they still divert attention from the roadway and that can make the headgear dangerous, according to David Strayer, director of the University of Utah’s Center for the Prevention of Distracted Driving.

Legislators in at least three states Delaware, New Jersey and West Virginia have introduced bills that would ban driving with Google Glass.

A spokesman for Google did not reply to a request for comment. On its website, Google says this about using the headgear while driving: "Read up and follow the law. Above all, even when you’re following the law, don’t hurt yourself or others by failing to pay attention to the road."

About 10,000 units of the glasses have been distributed so far in the United States to "pioneers," and this week Google announced another 30,000 would be available for $1,500 apiece.

Ubuntu 13.10 Review: The Linux OS of the Future Remains A Year Away

After the customary six months of incubation, Ubuntu 13.10 codenamed Saucy Salamander has hatched. The new version of the popular Linux distribution brings updated applications and several new features, including augmented search capabilities in the Unity desktop shell.

Although Saucy Salamander offers some useful improvements, it s a relatively thin update. XMir, the most noteworthy item on the 13.10 roadmap, was ultimately deferred for inclusion in a future release. Canonical s efforts during the Saucy development cycle were largely focused on the company s new display server and upcoming Unity overhaul, but neither is yet ready for the desktop.

Due to the unusual nature of this Ubuntu update, this review is going to diverge a bit from the usual formula. The first half will include a hands-on look at the new Unity features. The second half will take a close look at the Ubuntu roadmap and some of the major changes that we can expect to see over the course of the next several releases.

One of the key components of the Unity desktop shell is the Dash, the desktop overlay that enables the user to browse and search applications, files, and multimedia. The Dash can be expanded with custom views, called Scopes (formerly Lenses), that extend it with additional information. Since the initial introduction of the Dash, the search system has gradually evolved to operate like a kind of virtual storefront. In response to certain queries, it will recommend music from the Ubuntu One Music Store and products from Amazon, generating affiliate revenue for Canonical.

The Unity Dash got an overhaul under the hood for Ubuntu 13.10. Canonical wanted to extend the built-in search system so that it can access data from a wide range of Internet sources. For the new version of the Dash, the Web search functionality is now handled by a remote backend service that is hosted by Canonical.

As the user types a search query in the Dash, the partial query is transmitted to Canonical s servers, which will analyze the input and decide what to present. The new backend uses a number of heuristics to attempt to find the most relevant results to send back to the user. Some of the Internet sources that the new backend can tap include Github, reddit, Wikipedia, Flickr, Google News, The Weather Channel, and Yelp.

While testing Ubuntu 13.10 for this review, I typed in a number of different queries so that I could see how the Dash would respond. When I typed in the name of my city, it displayed weather information and Wikipedia entries about it. When I typed in the name of a popular Logitech gaming mouse, the Dash displayed Amazon product listings. When I typed in the name of my favorite musician, it offered albums, a Wikipedia entry, the musician s Twitch.tv profile, and a link to a reddit post about the musician.

The filtering mechanism on the side of the Dash allows you to toggle the sources, giving you some control over where the results are originating. You can also tell the search mechanism to only return results from a specific source by using a prefix. For example, you can type news:ubuntu if all you are looking for is Google News stories about Ubuntu.

The new Dash concept is intriguing, but its usefulness is a bit limited. The results are hit and miss and tend to be organized in a really

haphazard way. Another issue is that all results are displayed the same way: a rectangular icon with some text underneath. The whole system would be a lot more powerful and practical if it could tailor the presentation to the specific type of content.

When you click a search result in the Dash, it will display an expanded version of that item with a bigger icon and more text. The expanded result will also display a button that you can click to view more information on the Internet. For example, you can read an excerpt of a Wikipedia page by clicking its result item and then click the button to open the actual Wikipedia page in your browser.

It s worth noting that the Dash still does local system searches, displaying installed applications and recently used files from the filesystem. These items are given priority they are displayed first and in the most easily accessible position. The new remote search system is designed so that the results can be appended to the Dash as they trickle in, which means that it typically isn t going to pose any inconvenience when simply launching applications, for example.

Canonical faced considerable criticism last year when it first introduced the built-in Amazon search feature. The newly expanded search system, and the manner in which it is implemented, will likely raise additional concerns.

When a user opens the Dash, the underlying software will initiate a search session with Canonical s servers. During the session, each keypress will be transmitted over the wire. It will also send platform and version information, the user s country, the user s locale, and information about which search sources and scopes the user has added or removed.

Canonical says that it doesn t save any identifiable information. The user’s IP address is retained in standard server logs, but is not correlated with search behavior for tracking purposes. The company does keep track of certain usage data that it can analyze to improve search results.

Although I think that a universal Web search has the potential to be useful, I m not really comfortable with the way Canonical tacks it on to local system searches. I would be a lot happier with the feature if Canonical broke it out into a separate mechanism, activated by selecting a specific section of the Dash or using a particular shortcut. In its current form, it strikes me as a bit too invasive.

Fortunately, the Internet search feature is very easy to disable. Ubuntu 12.04 introduced a dedicated privacy control panel in the built-in System Settings tool. To disable Dash Internet searches in 13.10, all you have to do is open the privacy panel, navigate to the search tab, and flip off the toggle switch.

XMir is on the way, but it’s still on the launchpad in 13.10

Earlier this year, Canonical revealed that it was building a totally new display server called Mir that future versions of Ubuntu will use instead of Xorg. The project is an important part of the company s device-spanning platform strategy.

Xorg is the input and display system used today in virtually all Linux desktop systems. It’s the official reference implementation of X11, a

version of the X Window System protocol that dates back to 1987. The Xorg code is forked from XFree86, which itself originated in the early ’90s. X is very old technology, burdened with a lot of legacy cruft. Unlike Xorg, Mir is built from the ground up to offer a modern, hardware accelerated computing experience. It is also designed for versatility, with the aim of making it easy to adapt for use in a wide range of hardware environments.

Some of the benefits that Mir will eventually offer include lower overhead in the display pipeline, more seamless transitions between display modes during the boot process, richer input handling that will make it easier to support things like touchscreen gestures, more seamless support for systems with switchable graphics hardware (like laptops that can dynamically shift between using embedded and discrete graphics), and better application interchange (which will help improve things like the clipboard and drag-and-drop).

Virtually everyone in the contemporary Linux community acknowledges that it s time for the legacy X11 protocol to be put out to pasture (or taken behind the barn and shot). A project called Wayland, which emerged a few years ago, is widely considered the best candidate to replace X11. Created by AIGLX developer Kristian Hłgsberg, Wayland provides a modern display server protocol fit for composited desktops offering the same set of advantages enumerated above.

Canonical s decision to build its own unique display server instead of creating an implementation of the already-mature Wayland protocol has generated controversy in the broader Linux community. Critics argue that the duplication of effort and risk of fragmentation are detrimental to the platform. Canonical claims that it simply couldn t make Wayland meet Ubuntu s needs. The issue has created friction between Canonical and other Linux stakeholders, such as Intel.

It s important to understand that Wayland itself is a protocol, not a piece of software. The developers have created a lightweight reference implementation, called Weston, and a set of associated client libraries. The reference implementation is largely used for testing purposes the developers behind the major Linux desktop environments will all create their own Wayland compositors that conform with the protocol. The protocol itself is defined with an XML specification, but it uses binary over the wire.

By design, Wayland favors delegating as much functionality as possible to the clients that consume the protocol. The function of the display server here is largely to put pixels on the screen. In contrast with Wayland s minimalist design and distributed nature, Mir takes a more monolithic approach one where the various pieces of the stack are more tightly integrated and much less is delegated to the client. Canonical is especially keen on having the display server manage pixel buffers, which they contend will give them more control over resource consumption in ARM environments.

There are also some major differences in how Mir is intended to be consumed by adopters. Although Mir does have its own protocol (using Google s Protobuf format in much the same way that Wayland uses a compliable XML spec), the developers don t intend for third parties to create their own implementations. There will be an official Mir server and official client libraries that all adopters will use. The protocol that the Mir client libraries use to communicate with the servers is not guaranteed to remain stable Canonical can change it at will. Adopters

will essentially use Canonical s code and treat the underlying protocol like an implementation detail.

Although it s difficult to determine which approach is better at this stage, there is no question that Wayland has seniority and broader buy-in. Canonical is racing to get Mir into production, which means that it will probably beat Wayland to large-scale adoption. Wayland, however, has the benefit of a longer and more inclusive design process furnishing it with a high level of maturity and technical credibility.

Ubuntu developers are already using Mir in conjunction with Android graphics drivers to power Ubuntu Touch on devices, but it s going to take a bit longer to bring it to the desktop. In order to facilitate an incremental transition, Canonical will use a temporary shim called XMir that creates a bridge between existing X11-compatible software and the Mir display server.

XMir is largely built on top of Xorg, leveraging large amounts of existing functionality. It uses Mir to paint to the screen but doesn t use the new display server for much else. As such, there aren t really any compelling advantages for the end user that are unlocked by adopting XMir. When using XMir, the desktop is still effectively constrained by the limitations of Xorg it doesn t take advantage of any of the next-generation features that will eventually be available in a true Mir environment.

The primary advantage of getting XMir into Ubuntu is that it will provide a way for Mir to get broader exposure to more users and more hardware. That will help accelerate development, make it easier to identify bugs, and generally help improve the quality of the Mir user experience. Of course, in order to get to the point where it can be included in the distribution, there has to be a certain baseline level of quality and stability.

Incorporating Mir (via XMir) was one of the highest-priority goals for Ubuntu 13.10. In Canonical s original timeline for Mir adoption, the company intended for 13.10 to include XMir, with an X11 fallback for certain hardware. XMir would continue to be used in 14.04, but without the safety net of the additional legacy fallback. The transition to Mir was expected to be complete in the second half of next year with the release of 14.10. It s an extremely aggressive timeline for replacing something as foundationally important as a display server.

After much deliberation, the developers decided not to include Mir as the default display server in Ubuntu 13.10. Although Mir itself is largely up to the task, XMir still has a number of problems that need to be resolved. Canonical developer Oliver Ries announced the decision earlier this month Canonical was clearly on the fence right up until the last minute. He cited limitations with XMir multi-monitor support as the biggest pending issue.

As a result, Ubuntu 13.10 comes with a conventional Xorg display stack instead of using Mir. It s likely that XMir will finally arrive in Ubuntu 14.04, which will be released in April. It doesn t seem like the decision to defer XMir will significantly impact the timeline for final Mir adoption in 14.10 Mir itself is still on track and appears to be progressing well.

Unity s current incarnation is largely built on top of Compiz, a compositing window manager that leverages OpenGL for hardware-accelerated rendering. The graphical elements of the Unity desktop are literally

implemented in a Compiz plugin.

Although using Compiz made sense at the time that Unity was first created, there are a number of major disadvantages. Developing the Unity shell entails working at an extremely low level without much abstraction, creating user interface elements with straight OpenGL drawing. Unity developers made their own primitive OpenGL graphics framework called Nux to simplify user interface development, but Nux doesn t even come close to providing the kind of functionality that you would normally expect to get from a real user interface toolkit.

Canonical is increasingly focused on its mobile and embedded computing ambitions, hoping to build a presence across smartphones, tablets, set-top boxes, and other systems. The Unity developers are building a whole new version of the shell that is intended to work seamlessly with a unified implementation across all of those form factors. They are building the new version, called Unity 8, with the Qt user interface toolkit (which, as some of you likely recall, was at one time used to build the now-deprecated Unity 2d variant).

Although developing a whole new Unity shell represents a major undertaking, it s not as crazy as it might superficially sound. Thanks to smart architectural design, many key pieces of existing desktop infrastructure that power Unity can be reused with the new shell. Unity s underlying window management logic and functionality is largely decoupled from the visual display.

Those underlying pieces are implemented in background services and frameworks that communicate with the Unity Compiz plugin through the D-Bus interprocess communication system and other methods. Much of the underlying stack will still be applicable in the future, but there will be a new Qt-based shell sitting on top instead of the current Compiz-based Unity plugin.

Qt is particularly well suited for building native user interfaces that work well across different form factors. Qt includes an OpenGL scene graph framework called Qt Quick that is useful for building modern, hardware-accelerated user interfaces. Qt Quick provides a high-level declarative language, called QML, that makes it easy to define user interface layouts. Unlike Nux, QML gives developers a high level of abstraction and provides a relatively comprehensive range of features needed for user interface development.

Another key advantage of QML is that it makes it easy to create adaptable user experiences that work well across different kinds of devices. It s easy to customize QML layouts for specific screen sizes and create different layout variants that work well with various input systems and form factors. It s a bit like having a native user interface framework that supports what HTML folks call responsive design.

All things considered, building Unity 8 with Qt and QML will accelerate development, lower the barrier to entry for new contributors, and make it easier to create experiences that span form factors. Unity 8 is currently under heavy active development, but it is already used in Canonical s Ubuntu Touch mobile environment. The Ubuntu 13.10 desktop, however, is still based on Unity 7.

For those who want to get an early look, Ubuntu 13.10 has an available preview of the Unity 8 touch environment that will be used on phones and tablets. To see it for yourself, all you have to do is install the

unity8 package from the repositories in Ubuntu 13.10. After installing the package, run the unity8 command at the command line. The QML-based Unity 8 touch environment will open in a window.

You can try resizing the window to see for yourself how Unity 8 looks at various screen sizes. It s important to note that the current implementation represents the phone and tablet work the developers still have to finish the conventional desktop version of the shell layout. The design will likely evolve before it is officially released.

Conclusion

Unity 8 is expected to arrive on the desktop in Ubuntu 14.04 at the earliest, but more likely 14.10. At that point, Unity 7 will likely be retired from further development. Due to the imminent transition to Unity 8 and Mir, Ubuntu 13.10 is sort of like the calm before the storm. It ships with the familiar old Unity 7 and Xorg which are reliable but headed for deprecation.

As Canonical s attention is almost entirely dominated by the major technical changes coming in the near future, there wasn t a whole lot of work that surfaced in 13.10 the assortment of new features is pretty thin.

It s worth noting that 14.04 is supposed to be a long-term support (LTS) release, which makes the timing a bit unfortunate. Canonical provides five years of support for LTS releases, ensuring that security patches and other critical updates are available.

The last few LTS releases have been relatively conservative, with Canonical focusing on bug fixes and stability. Landing radically new technology in an LTS release could potentially prove problematic. The 13.10 release, which still uses Unity 7 and Xorg, would probably have been a better candidate for an LTS.

After spending a good month with Ubuntu 13.10, I ve found it to be a reasonable update albeit without much to really distinguish it from its predecessor. It works as expected with a fair degree of competence. I didn t have any issues during installation or use. The new features in the dash are interesting, but they aren t really something that I expect to use heavily.

That said, I d recommend that non-LTS users update so that they can be sure to continue getting security patches. Keep in mind that the non-LTS Ubuntu releases are only supported for nine months. That policy began with Ubuntu 13.04, which was released in April. If you re not using an LTS, you should probably update regardless of whether you really want or need the new features.

It s hard to get excited about the 13.10 release, but there are some major changes on the horizon that should make the next few major Ubuntu releases a lot more interesting.

Underwater Internet To Make Ocean More Wi-Fi Friendly

If there were a modern reboot of "The Little Mermaid," Ariel would probably tell Sebastian that living under the sea was a pain because of the shoddy Wi-Fi connection. But a research team at the University of

Buffalo in New York might be able to grant Ariel’s wish of a better underwater Internet.

Tommaso Melodia, the director of the Wireless Networks and Embedded Systems Lab at the university, said that his research wasn’t so much to create a new Internet below the sea but to make sensors and other underwater electronics more accessible to land-based devices, such as laptops and mobile phones. "We’re looking to make underwater networks a part of the Internet, so you can access them without specialized equipment or software," he told ABC News.

In addition to monitoring pollution levels or reading geological data to better predict tsunamis, Melodia believes law enforcement agencies would find an underwater Internet useful as well. "I’ve been reading ... that there’s a lot of drug trafficking from South America to North America via submarine," he said. "You could create networks of devices that can detect this type of activity."

Making the ocean Internet-friendly requires more than simply taking a router below sea level, since conventional radio waves that transmit data on land travel poorly underwater. But as submarine navigation systems that use sonar can attest, acoustic waves travel well underwater. Melodia and his students recently performed a test run off Lake Erie, dropping 40-pound sensors into the lake and a relay buoy on the lake’s surface.

"The Wi-Fi radio signal transmits to the buoy, which converts it into acoustic waves for the underwater sensors," said Hovannes Kulhandjian, a graduate student working with Melodia. "It’s also bidirectional. Basically, you talk to them and they talk to you."

Despite a few technical glitches, the tests ran smoothly. "There is a steel company next to the lake, so a lot of the acoustics were reverberating off the walls of the factory," said Kulhandjian. "But it wasn’t a major problem," he said, adding that a single sensor and buoy system has an effective radius of about 1 mile.

Though the tests were conducted in Lake Erie, Kulhandjian said that they should work effectively in saltwater too. "All of the electronics are inside this sphere and vacuum sealed," he said. "They’re behind a half inch thick barrier, so no water comes through."

So at least whenever Sebastian gathers up the sea critter band to try to convince Ariel to stay underwater, other Disney creatures won’t have buffering problems when the concert is livestreamed.

Google’s Mystery Barges Revealed As Luxury Showrooms with Party Deck

Google Inc’s mysterious barges, which prompted fevered speculation about everything from offshore data centers to floating research labs, may serve a more prosaic role as upscale party venues and showrooms.

The multi-story vessels made out of stacked shipping containers, one moored in the San Francisco Bay and the other at the Portland, Maine harbor, are invitation-only luxury showrooms for Google’s Glass wearable computers and other gadgets, according to local San Francisco TV station KPIX.

The structures will feature a top-floor "party deck," complete with "bars, lanais and other comforts," according to the report, which cited unnamed sources.

The existence of the floating barges surfaced last week, when technology website CNET theorized that the San Francisco vessel might be a floating data center that would house banks of computers. Google was granted a patent for a water-based data center in 2009.

Google has declined to comment on the matter, refusing even to acknowledge its affiliation with the vessels. But the executive director of the San Francisco Bay Conservation and Development Commission, Larry Goldzband, told Reuters his agency has had several meetings with Google officials about the barge in recent months.

Google has gone to great lengths to keep the details of the barges secret, with chain link fences and security guards encircling the pier where one of the barges is under construction at San Francisco’s Treasure Island.

At least one Coast Guard employee has had to sign a non-disclosure agreement with the Internet giant, as did another person who would identify himself only as an inspector for a California government agency, Reuters reported earlier this week.

The project is being personally directed by Google co-founder Sergey Brin, according to KPIX. Brin heads up the Google division developing Google Glass, a cross between a mobile computer and eyeglasses that allows users to surf the Web and record video.

On Monday, Google said that it would expand the availability of the $1,500 Glass devices. Google has allowed a limited number of carefully selected early adopters to buy test versions of the device this year, and will now allow each of those customers to "invite" three friends to purchase the gadget.

The new showrooms could help Google build buzz for the wearable devices and its other hardware as it competes with more established hardware makers such as Apple Inc, which has hundreds of stylish retail outlets.

The Google shipping containers can be quickly assembled and disassembled, according to KPIX, allowing the showrooms to be transported by truck, rail or barge to destinations such as ski resorts and beaches.

Teens Are Leaving Facebook And This is Where They Are Going

Like many parents, Facebook is learning that raising teenagers is hard. On Wednesday evening during its 2013 fourth quarter earnings call Facebook’s Chief Financial Officer David Ebersman said teen usage of the social network decreased in the last quarter.

"We did see a decrease in daily users, specifically among younger teens," Ebersman said, sending down the stock from the rise it saw after earnings were announced. "We wanted to share this with you now because we get a lot of questions about teens."

Of course, those precious teens haven’t decided to spend less time on

their phones, tablets or computers interacting with friends. They have just decided to spend the time using different social networks. So where are the teens going? Here are some ideas.

Look at the phone of any high school kid and you'll likely find Instagram easily accessible. Instagram doesn't outrightly share how many younger users it has, but according to Pew, 18 percent of cell owners use Instagram and Instagram states that it has 150 million active users.

Teens don't just post food photos or selfies though. They comment on photos of their friends and share images of things they are interested in - sports, bands, celebrities, you name it.

This isn't bad news for Facebook. The company owns Instagram and shelled out $1 billion for it in April 2012. Brian Solis, a principal analyst at Altimeter Group, says be believes Mark Zuckerberg and Facebook's lead executives knew they would need help with the younger market at the time and that was the impetus behind the purchase.

"Facebook realized it needed not just a mobile future, but also a future for this younger or teen audience," Solis told ABC News.

Teens are also spending a lot of time looking at photos that disappear within 10 seconds. Snapchat is another teen mobile staple now. Again Snapchat doesn't share stats on the age of its users but says 350 million photos or "Snaps" are sent every day across the network.

Also, the service became so popular with kids that the company released Snapkidz in June, an app that doesn't actually let kids share photos but just doodle on them. Yeah, that's certainly not what the teens are after.

Teens are also creating their own social networks, much in the same way many did with AOL or AIM before there was Facebook. Using chat apps like Kik and WhatsApp many use the group messaging and other messaging features in this app to keep up with friends. According to WhatsApp, the service has over 300 million users.

Solis points out that teens lead different social lives than adults and that's why some of these more instant or real-time messaging apps appeal to them. "The reality is that teens have every day social situations that adults don't have. They have a real life social network every single day and for that they are using a lot of real time text related communication," he said.

Other networks have also gained some steam with younger users. For instance, Pheed surged in popularity a few months ago because of the multimedia tools the service offered in comparison to Facebook and Twitter. It allows for status updates, but also quick video clips and photo filters similar to Instagram. Pheed's CEO told ABC News in March it was seeing huge growth with the younger market.

Solis also mentioned AskFM as a popular teen hangout. This social network allows users to pose questions to one another and is similar in design to Reddit threads. According to Business Insider, half of the network's 65 million users are under 18. But because of the anonymity of users, teens are said to be particularly harsh and mean.

And then, of course, there is Twitter. According to Piper Jaffray's semi-annual teen market research report, Twitter overtook Facebook in terms of popularity with teens. Twenty six percent named Twitter as

their "most important" social site, while only 23 percent said Facebook was most important, down from 42 percent the year before.

As Facebook is learning, with teens what’s in one day is out the next.

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